

BEST AVAILABLE COPY

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
12 May 2005 (12.05.2005)

PCT

(10) International Publication Number
WO 2005/042577 A1

(51) International Patent Classification⁷: C07K 14/705

[KR/KR]; Jeonbo Apt. 1202, 300-10, Ichon 1-Dong, Yongsan-Gu, Seoul 140-131 (KR). PARK, Sung-Dae [KR/KR]; Jamwon Family Apt. 1-1006, Jamwon-Dong, Seocho-Gu, Seoul 137-030 (KR).

(21) International Application Number: PCT/KR2004/002784

(74) Agent: PARK, Jang-Won; Jewoo Bldg. 5th Floor, 200, Nonhyun-Dong, Gangnam-Gu, Seoul 135-010 (KR).

(22) International Filing Date: 1 November 2004 (01.11.2004)

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

(26) Publication Language: English

(30) Priority Data: 10-2003-0076967 31 October 2003 (31.10.2003) KR

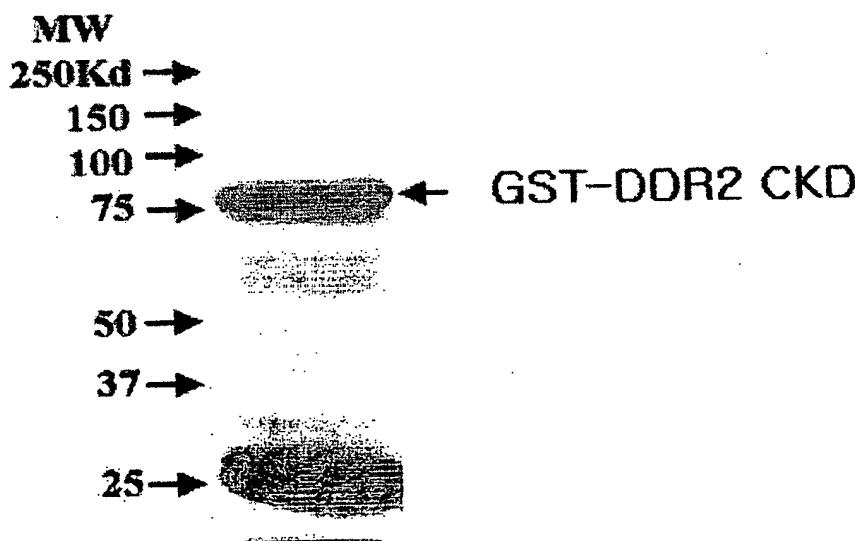
(71) Applicants (for all designated States except US): KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY [KR/KR]; 39-1 Hawolgok-Dong, Sungbook-gu, Seoul 136-791 (KR). JEIL PHARMACEUTICAL. CO., LTD. [KR/KR]; 745-5, Banpo-Dong, Seocho-Gu, Seoul 137-041 (KR).

(72) Inventors; and
(75) Inventors/Applicants (for US only): YANG, Beom-Seok

[Continued on next page]

(54) Title: DDR2 PROTEIN WITH ACTIVATED KINASE ACTIVITY AND PREPARATION METHOD THEREOF

WO 2005/042577 A1



(57) Abstract: The present invention relates to a protein containing a modified DDR (Discoidin Domain Receptor) 2 cytosolic tyrosine kinase domain having an increased autophosphorylation and tyrosine kinase activity; a method for preparing a large amount of a protein containing DDR2 cytosolic tyrosine kinase domain, having an increased autophosphorylation and tyrosine kinase activity by inducing phosphorylations of tyrosines by a co-expression with Src or Src related proteins in host cells, or by H2O2 processing of host cells, or a site directed mutation modifying at least one of tyrosines to other amino acid; and a use thereof as a target material in developing medical drugs for treating a disease caused by an excessively activated DDR2 autophosphorylation and tyrosine kinase activity.



FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

— *with sequence listing part of description published separately in electronic form and available upon request from the International Bureau*

Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.